

CALIFORNIA PRESTRESS MANUAL

PRESTRESS WORKING DRAWINGS

Section 50-1.02 of the Standard Specifications requires that the contractor submit working drawings of the prestressing system that will be used. It is the Contractor's responsibility to use a system approved by Caltrans or obtain approval from the Translab for the system which is proposed for use.

The working drawings are to be submitted by the Contractor to the Documents Unit in Sacramento (STD. SPEC. 50-1). They will distribute the various sets of drawings for review and approval. The distribution is outlined in Bridge Construction Memo 160-6.0.

The responsibility for checking the working drawings is shared by the designer and the Structure Representative. Working drawings shall not be returned to the Contractor until the designer has discussed and resolved the details with the Structure Representative. The comments returned to the Contractor must be acceptable to both the designer and the Structure Representative.

The normal time allowed for working drawing review by Caltrans is 6 weeks for structures not involving railroads and 8 weeks for structures which do involve railroads.

The Standard Specifications, Special Provisions, Contract Plans, Standard Plans, Bridge Construction Records and Procedure Manual, and RE pending file should be carefully reviewed before and during the working drawing review. All dimensions, layouts, and calculations shall be checked. Items of specific concern are as follows:

1. Prestressing force and theoretical elongations.
2. The force variation between girders.
3. Bearing plate stresses and concrete stresses behind the bearing plates.
4. Whether one or two end stressing.
5. Duct layout and reinforcement conflicts.
6. Blockout sizes and possible utility conflicts.

For a checklist on reviewing working drawings see Appendix C-Inspection Checklist.

It is important that all parties involved (Designer, Structure Representative, Inspecting Engineer, Contractor, and Subcontractor) are working from an Approved set of Working Drawings.

It may occur that the Contractor will begin construction from an unapproved set of working drawings. The Contractor should be reminded (and noted in the diary) that all work will be checked with a approved set of working drawings and any deficiencies will require correction and that no concrete will be placed until the corrections have been made.

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At the completion of all the structures on the Contract, the contractor shall submit one set of 35 mm microfilms of the approved working drawings for each structure (Std. Spec. 50-1.02). If the Structure Representative receives these items, they should immediately be forwarded to the Office of Structures Design, Documents Unit, P.O. BOX 942874, Sacramento 94274-0001 as outlined in Memo 160-6.0 of the Bridge Construction Records and Procedures Manual.